

Amendments to the Specification

Page 7, after paragraph 3, insert the following:

It is an object of the present invention in streaming data applications to reserve a portion of the repeated, complex coded pulses for structured linear digital databases.

It is an object of the present invention to structure data in a linear digital database and concurrently transmit it utilizing TM-UWB radio telephony networks and/or fiber optic networks using TM-UWB-type repeated, complex coded pulses.

It is an object of the present invention to use TM-UWB-type repeated, complex coded pulses as a repeated, structured linear digital database in a TM-UWB radio-telephony network and/or fiber optic network.

It is an object of the present invention to use the spaces in TM-UWB and/or TM-UWB-type repeated, complex code pulses to represent digital information (0 or 1), or a neutral position.

Page 7, before last paragraph, insert:

The present invention provides a common platform for universal data interchange, for simultaneous transmission of streaming and non-streaming data, based on time modulated ultra wideband (TM-UWB) repeating, complex, coded pulses. The present invention also provides for high-speed, secure transmission of structured linear databases over a variety of networks, either wireless and/or hard-wired.

Page 8, before the first full paragraph, insert:

A unique feature of this technology is pulses are digitally independent which allow radio, TV, voice and data to be telecommunicated concurrently with the complex coded pulse stream

Page 8, after first full paragraph, insert:

These routing header subdivisions may used by a variety of transmission control protocols, such as but not limited to, file transfer protocol, link access protocol, balanced file transfer access method, product definition interchange format, asynchronous transfer mode,

the transmission control protocol/internet protocol (TCP/IP), or the geoposition based transmission control protocol described in Attachment B of US Provisional Patent Application, Serial No. 60/220,749 to Melick, et al, previously incorporated by reference.

Page 9, after first full paragraph, insert:

Structured linear databases may be transmitted on fiber optic networks which are very secure, and very high speed. They may also be transmitted wireless on TM-UWB digital, impulse radio pulses which provide high security, high speed, wireless communication capabilities, or a combination of both networks. They may also be transmitted wireless on traditional radio frequency (RF) carriers, or non-fiber optic hard-wired networks, which are not as secure, or in some cases as high a transmission rate as TM-UWB.

Page 14, last paragraph and ending on page 15, amend as follows:

Pulses 10,001 to 30,010,000 are the data storage and transmission division reserved for streaming and non-streaming data. The subdivisions include Internet, TV, radio, voice, data, and an unallocated subdivision. The unallocated subdivision is reserved for future use. The data storage and transmission division will be subdivided into repeating, constant duration time slots. The duration of these time slots will be designed as is appropriate to take advantage of TM-UWB wireless and fiber optic transmission capabilities, and the performance of computers or other electronic devices that are enabled to use structured linear databases. However, it is important to note that structured linear databases may be carried over any wireless, or hard-wired medium.

Chart 2 is an detailed example of the repeating, constant length subdivisions of the data storage and transmission division of Chart 1.

Page 24, before first paragraph, insert:

Other benefits of patents related to linear databases include:

- 1) Self-routing telecommunications
- 2) Faster computing speeds
- 3) Faster telecommunication speeds

- 4) Fewer computing errors
- 5) Fewer telecommunication errors
- 6) New number base for digital computing
- 7) New number base for digital telecommunication